

DIAGNOSIS OF SOME NEW TAXA AND SOME NEW COMBINATIONS  
IN BIGNONIALES

C. P. Sreemadhavan  
Department of Botany  
University of Jos  
Nigeria

In my recently completed Ph.D. dissertation entitled "Leaf architecture and systematics of the Acanthaceae and related families" (University of South Florida, 1976) I have recognized several new taxa and made many new combinations. In anticipation of considerable delay in the publication of the dissertation in its entirety the names of the new taxa and the new combinations are published in this paper.

1. Acanthaceae Juss. emend. Sreem. Synonym: Acanthoideae Lindau emend. Bremek. Proc. Nederl. Akad. Wet. C 58: 163. 1955. Type genus: Acanthus Linn.
2. Justiciaceae (van Tieghem) Sreem. fam. et stat nov. Synonyms: Justicioideae van Tieghem Ann. Sci. Nat. Bot. IX 7: 22. 1908. Ruellioideae Bremek. Proc. Nederl. Akad. Wet. C. 58: 163. 1955. Type genus: Justicia Linn.
3. Meyeniaceae Sreem., fam. nov. Familia Pedaliaceae Thunbergiaceae Thomandersiaceae affine, proprie habitu scandenti; foliis simplicibus, haud lobatis, venis actinodromis; calyce 5-lobato; pollinis granis (7)-8-(9) colpatis, perlobatis, peretrematis; capsulis rostratis, 2-4 semina exalbuminata fermentibus. Typus familiae: Meyenia Nees.
4. Nelsoniaceae (Nees) Sreem. fam. et status nov. Synonyms: Acanthaceae Juss. tribus Nelsonieae Nees. DC. Prodr. 11: 48. 1847; Bremekamp, Proc. Nederl. Akad. Wet. C. 56: 545. 1953. Acanthaceae subfam. Nelsonioideae Lindau, Bot. Jahrb. 18: 43. 1894, and Nat. Pflanzenfam. IV. 3b: 288. 1895. Type genus: Nelsonia R. Br.
5. Thomandersiaceae Sreem., fam. novum. Familia Justiciaceae, Pedaliaceae, Acanthaceae Meyeniaceae affine, proprie habitu fruticoso; caulibus non articulatis; foliis simplicibus, venis pinnato-campitodromis, cystolithis carentibus; bracteis

inconspicuis; pollinis granis 5-(6)-colpatis, oblati, peretrematis; capsulis obtusis ad apicem, muris lignosis crassis, semina exalbuminata duo in quoque loculo ferentibus. Typus familiae: Thomandersia Baill.

6. Odontophyllum Sreem., Genus novum, Familia Acanthaceae Juss. tribu Aphelandrea Lindau pertinens, Aphelandra R. Br. affine, proprie foliis serratis vel dentibus, venis pinnato-craspedodromis, venis secundariis vel processis eis dentibus et ultra extensis, spinis acutis simulantibus; nodis caulibus saepe appendicibus spinosis bracteoidibus armatis.

Type species: Odontophyllum acanthus (Nees) Sreem. comb. nov. Basionym: Aphelandra acanthus Nees, DC. Prodr. 11: 302. 1847.

The following species are included in this genus. (Key to the abbreviations: Leonard = Leonard, E. C., Contributions from the U.S. National Herbarium. Vol. 31, part 2, pages 119-322. 1953; Wass. = Wasshausen, D.C., Phytologia 25: 465-502. 1973).

2. Odontophyllum acanthifolium (Hook.) Sreem. comb. nov. Aphelandra acanthifolia Hook., Icon. Pl. 2, pl. 113. 1837.
3. O. benoistii (Wass.) Sreem. comb. nov. Aphelandra benoistii Wass., 498.
4. O. castanifolium (Britt.) Sreem. comb. nov. Aphelandra castanifolia Britt., Bull. Torrey Bot. Club. 27: 76. 1900.
5. O. chrysanthum (Wass.) Sreem. comb. nov. Aphelandra chrysantha Wass., 483.
6. O. cinnabarinum (Wass.) Sreem. comb. nov. Aphelandra cinnabarina Wass., 484.
7. O. cirsioides (Lindau) Sreem. comb. nov. Aphelandra cirsioides Lindau, Fedde Repert. Nov. Sp. 1: 157. 1905.
8. O. crispatum (Leonard) Sreem. comb. nov. Aphelandra crispatum Leonard, 151.

9. O. cuscoensis (Wass.) Sreem. comb. nov. Aphelandra cuscoensis Wass., 469.
10. O. dasyanthum (Wass.) Sreem. comb. nov. Aphelandra dasyantha Wass., 474.
11. O. euoplum (Leonard) Sreem. comb. nov. Aphelandra euopla Leonard, 138.
12. O. eury stomum (Mildb.) Sreem. comb. nov. Aphelandra eury stoma Mildb. Notizbl. 11: 64. 1930.
13. O. formosum (Spreng.) Sreem. comb. nov. Hygrophila formosa Spreng. Syst. Veg. 2: 828. 1825. Aphelandra formosa (Spreng.) Nees, DC. Prodr. 11: 301. 1847. Ruellia formosa Humb. & Bonp., Pl. Aequin. 1: 167. pl. 48. 1813 non Andrews, 1810, nom. illeg.
- Ruellia formosa Humb. & Bonp. is a later homonym of R. formosa Andrews and cannot be considered for purposes of priority. Sprengel's Hygrophila formosa is then to be considered as a new name and not as a combination and dating from 1825. H. formosa Spreng. is to be considered as the basionym for Nees' combination in Aphelandra also.
14. O. gilvum (Leonard) Sreem. comb. nov. Aphelandra gilva Leonard, Contrib. U.S. Nat. Herb. 31(3): 704. 1958.
15. O. grangeri (Leonard) Sreem. comb. nov. Aphelandra grangeri Leonard, Contrib. U.S. Nat. Herb. 31(3): 701. 1958.
16. O. hieronymi (Brisb.) Sreem. comb. nov. Aphelandra hieronymi Griseb. Abh. Ges. Wiss. Goettingen 24: 260. 1879.
17. O. huilensis (Leonard) Sreem. comb. nov. Aphelandra huilensis Leonard, 146.
18. O. inaequalis (Lindau) Sreem. comb. nov. Aphelandra inaequalis Lindau, Bull. Herb. Boiss. Ser. 3: 368. 1895.
19. O. juninensis (Wass.) Sreem. comb. nov. Aphelandra juninensis Wass., 471.
20. O. kokobanthum (Lindau) Sreem. comb. nov. Aphelandra kokobantha Lindau, Ann. Conserv. & Jard. Bot. Geneve 2: 39. 1898.

21. O. longibracteatum (Lindau) Sreem. comb. nov.  
Aphelandra longibracteata Lindau, Bull. Herb. Bioss.  
Ser., 3: 367. 1895.
22. O. luyensis (Lindau) Sreem. comb. nov. Aphelandra luyensis Lindau, Notizbl. 8: 245. 1921.
23. O. lyratum (Nees) Sreem. comb. nov. Aphelandra lyrata Nees, DC. Prodr. 11: 302. 1847.
24. O. macrosiphon (Lindau) Sreem. comb. nov. Aphelandra macrosiphon Lindau, Bull. Herb. Boiss. 3: 367. 1895.
25. O. mucronatum (Ruiz. & Pav.) Sreem. comb. nov.  
Justicia mucronata Ruiz. & Pav., Fl. Peruv. & Chil.  
Prodr. 1: 8. pl. 10. 1798. Aphelandra mucronata (Ruiz & Pav.) Nees, DC. Prodr. 11: 301. 1847.
26. O. mutisii (Leonard) Sreem. comb. nov. Aphelandra mutisii Leonard, 136.
27. O. peruvianum (Wass.) Sreem. comb. nov. Aphelandra peruviana Wass., 470.
28. O. phainum (Wass.) Sreem. comb. nov. Aphelandra phaina Wass., 492.
29. O. phoberum (Leonard) Sreem. comb. nov. Aphelandra phobera Leonard, 143.
30. O. porphyrocarpum (Leonard) Sreem. comb. nov.  
Aphelandra porphyrocarpa Leonard, 140.
31. O. porphyrolepis (Leonard) Sreem. comb. nov.  
Aphelandra porphyrolepis Leonard, 134.
32. O. reticulatum (Wass.) Sreem. comb. nov. Aphelandra reticulata Wass., 493.
33. O. rubrum (Wass.) Sreem. comb. nov. Aphelandra rubra Wass., 494.
34. O. runcinatum (Klotzsch ex Nees) Sreem. comb. nov.  
Aphelandra runcinata Klotzsch ex Nees, DC. Prodr. 11: 302. 1847.
35. O. rusbyi (Britt.) Sreem. comb. nov. Aphelandra rusbyi Britt., Bull. Torrey Bot. Club. 27: 77. 1900.

36. O. superbum (Lindau) Sreem. comb. nov. Aphelandra superba Lindau, Ann. K. K. Naturh. Hofmus. Wien. 16:71. 1901.
37. O. tillettii (Wass.) Sreem. comb. nov. Aphelandra tillettii Wass., 473.
38. O. viscosum (Mildb.) Sreem. comb. nov. Aphelandra viscosa Mildb., Notizbl. 11: 66. 1930.
39. O. weberbaueri (Mildb.) Sreem. comb. nov. Aphelandra weberbaueri Mildb., Notizbl. 11: 67. 1930.
40. O. wurdackii (Wass.) Sreem. comb. nov. Aphelandra wurdackii Wass., 472.
7. Andrographis rotundifolia (Sreem.) Sreem. comb. et stat. nov. Andrographis neesiana Wt. var. rotundifolia Sreem. Bull. Bot. Surv. India 8: 91. 1966.

Leaf architecture of A. neesiana Wt. var. rotundifolia shows major differences from that of the typical variety sufficient to raise it to the rank of a species.

I thank the late Professor Robert W. Long (University of South Florida, Tampa, Florida) and Dr. Leo J. Hickey (Division of Paleobotany, Smithsonian Institution, Washington, D.C.) for discussion during the course of this work, and Dr. William D'Arcy (Missouri Botanical Garden, St. Louis) for translating the diagnosis into Latin.